

HOUSE PAINTER'S
HAND-BOOK.

STEVENS.

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THE ART
OF
HOUSE-PAINTING:

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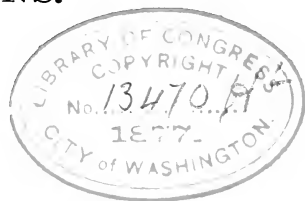
A CLEAR AND COMPREHENSIVE RECORD OF THE
OBSERVATIONS AND EXPERIENCES, DURING
MANY YEARS, OF A

PRACTICAL WORKER IN THE ART,

AND DESIGNED TO INSTRUCT AND ASSIST IN THE
EVERY-DAY WORK OF PAINTERS AND OTHERS.

BY

JOHN STEVENS.



NEW YORK:
JOHN WILEY & SONS,
15 ASTOR PLACE.

1877.

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S. W. GREEN,
PRINTER AND ELECTROTYPYER,
16 and 18 Jacob Street,
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Q-31394

PREFACE.

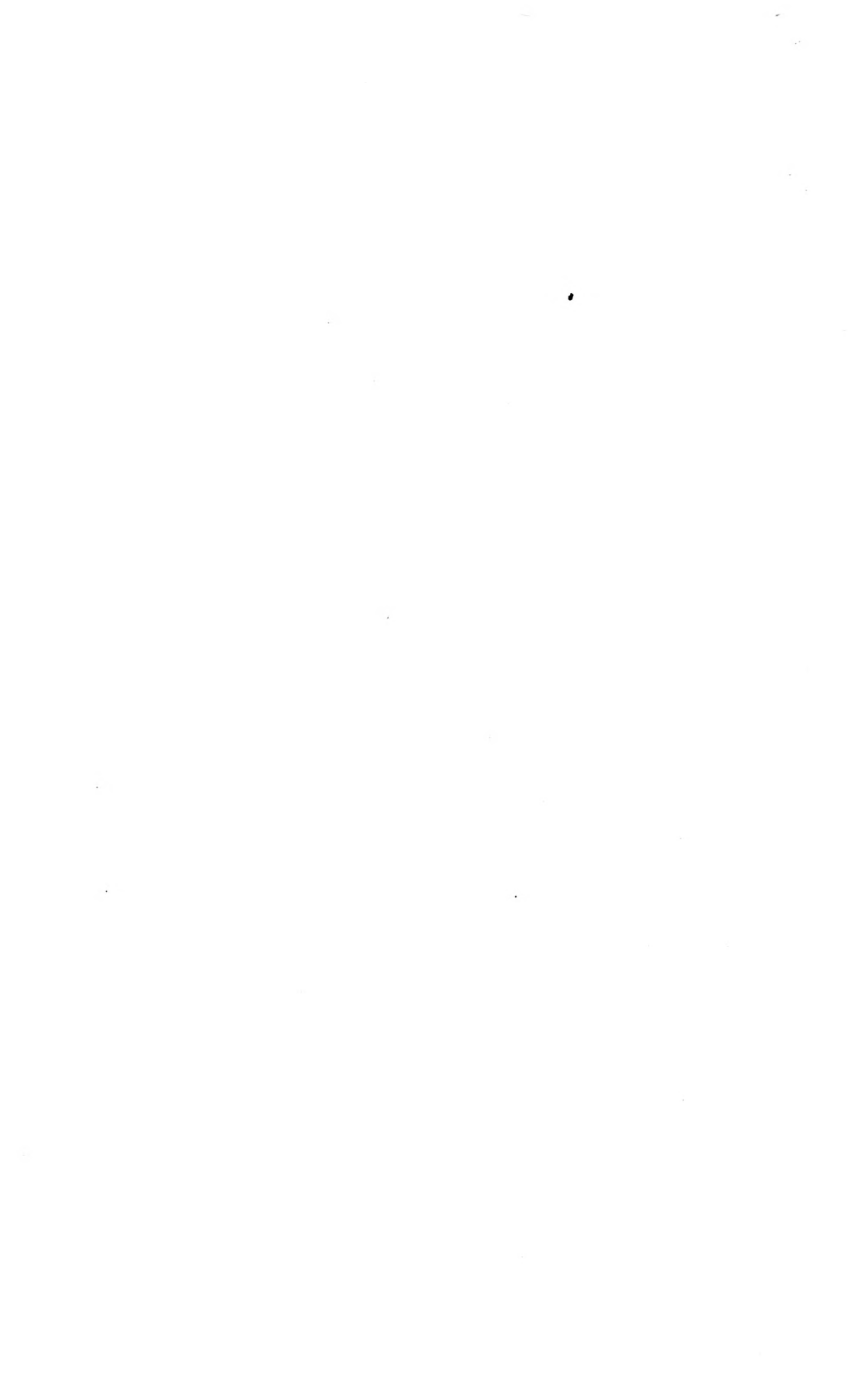
NOT only the practical man will find the contents of this book valuable in its sensible statements of the way of working, but all who build houses, as well as those who live in them, will find many hints which they can use to their advantage.

To the business man a system is essential, to enable him to perform his work in a thorough manner, and the author has accordingly emphasized its importance. Having proved this in conducting his own work, he has here endeavored to show others *how to do it*.

D. W. C. S.

YONKERS, WESTCHESTER Co., N. Y.

October 27, 1877.



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THE ART OF HOUSE-PAINTING.

OUTSIDE PAINTING.

PRIMING NEW WOOD-WORK.

PREPARATION.—First, let the wood get perfectly dry from rains, storms, or dampness, then cover all the knots and pitchy places with a varnish made of gum-shellac dissolved in alcohol to about the thickness of molasses. Apply the varnish with a small brush. It dries very quick, and the paint may then be put on.

MATERIALS.—The paint should be the best white lead mixed in pure raw linseed-oil. Turpentine may be used in winter to make the paint work easy, as the oil is apt to chill and the paint become thick and work tough under the brush; but in summer it should not be used in priming

but in places where the sun does not reach. In winter, it will be necessary to put in litharge, or some other drier ; but in summer, drier is not much needed for priming, for good oil will dry of itself in a day or two, and if the wood is seasoned, and as dry as it should be, there is not much danger of showers or storms washing off the paint, as it will mostly be absorbed in the surface.

MIXING.—The lead or zinc paint thus mixed may be colored by the addition of ochre, Spanish brown, etc., directions for which will be given under its proper head. Priming outside should always be made as light-colored as possible. If the house or building is to be finished white, of course the priming should be white ; but if it is to be finished a brown, the priming should be a light brown. The same in regard to any other color intended to be the finish, because, if this rule is adhered to, the first colors will not show through so soon by wear, or in joints which may partially open by the weather ; besides, a

less quantity of paint is required to finish and cover; and it is well to have it understood at the beginning, that too much paint can be put on outside wood-work—that is, it can be put on too thick in any one application.

BRUSHES.—The priming color should be applied with a good brush of the largest 6 O size, bridled, if a new one, about one third the length of the bristles with good twine, and as the brush wears, the binding or bridle to be taken off. Care should be taken to use or wear the brush flat or wedge-shape with a straight tip. This can be done by holding it always in one position in the hand. If it is suffered to turn round, it will wear stubby and be unfit to do good or smooth work. As brushes cost a good deal of money, it is essential that great care should be taken in their use and in preserving them.

PRESERVING BRUSHES.—If they are in every-day use, they should be put every night in water, standing them very carefully in a tub or other vessel, and not let

the water reach more than half way the length of the bristles. But if the painting is all done, and the brushes are yet good, they may be preserved for a long time by washing them out clean in warm water and soap, and laying them away in a moist place. Care should be taken, however, to have all the paint taken entirely out of them by first washing them thoroughly with turpentine.

CONSISTENCY OF PAINT.—The paint should be thin enough for priming to work easy under the brush, and not run or drip on the surface, as it will if too thin. It should not be thick enough to cover the grain of the wood, for it would be apt to blister after a time, and would work very tough and hard while being put on. Care should be taken that every potful of paint used should be of the same consistency, for if one part is painted or primed with thick paint and the other with thin, it will not be long before it will show in patches and spots, which spoil the looks of the building.

APPLICATION. — Apply the paint on about a square yard or more, without regard to smoothing it off, or a much larger space, according to circumstances, or as far as a man can well reach from a ladder. Get the paint on evenly, and then commence to smooth or lay it off, drawing the brush evenly and straightly across the surface covered.

ECONOMY OF APPLICATION.—It is notorious that many good painters lose one quarter of their time in laying or smoothing off small parts of their work. Instead of covering a large surface as convenient evenly first, as stated above, and then smoothing it, they actually, as a necessary consequence of their mode of working, smooth or lay off their work many times over, because if they paint one board, for instance, and smooth it off, as I have seen many continually do, in covering the next board they rough up the paint on the first, which has to be smoothed again. And so they do their work over and over, and make less headway than would one who

understood the economy of the method of applying paint. I mention this because I have suffered losses on contract painting from this cause, and because it is proper that journeymen should be reminded of these things, and also that all men employing workmen should be able to judge of their work.

LAPS.—Laps are the joinings of two applications, or the edges of the stretch coming together and forming two coats wherever the lap is made. They should be avoided, because they present a very great disfigurement to the eye, and will remain a long time, even showing after the building is several times painted. It is best to prime but a few boards, or a narrow space across the building, at a time, or, if working on ladders and not being easy to move often, by care in rubbing out properly at the edges the lap may be avoided. In the joining of two stretches, much care and skill is required, or defects will show when the paint is dry which did not appear at the time of applying it. The brush must

be drawn straight and even, and lifted gradually and finely as it reaches the extent of the stretch, or the place of joining. This is, however, more particular in second coating, or in finishing.

BRUSHING.—Priming should be rubbed out considerably, not flowed on loosely, as it will blister and run. The brush should work easy, at the same time a pressure be exerted as if to rub the paint into the wood. The only exception to this latter rule is in priming over spots which are very open and discolored ; then the painter should lay on more paint and rub it out less ; because such spots cannot be touched up after the work is second-coated or finished without a positive disfigurement, particularly on all colors except white.

COLORING MATERIALS.—The best coloring, in mixing paint for priming, or for any other painting, is pure, dry French ochre, Spanish brown, Venetian red, and lamp-black ; with these almost any desired color can be made with white lead or zinc. Um-

ber, terra sienna, Indian red, etc., are sometimes used, but they are more expensive than durable ; although a richer color may be obtained with them, yet in ordinary house-painting the richness is scarcely distinguishable from work done with the first-named ingredients, and, besides, it is not by any means so durable. The colors should first be broken or mixed up each by itself, and added to the principal ingredient in such proportions as will produce the color desired. First make a trial with a very small quantity, in order to get at the color wanted, as well as to estimate the proportion of each color to make it.

PURE PAINTS.—The colors are better for being ground in a paint-mill. They can be bought already ground, but there is a great deal of adulteration in the manufacture of such paints, there being only a few in the business who can be relied upon to furnish them perfectly pure ; and as the prevailing fashion of tints in house-painting is such as to require the principal ingredient to be of such coloring, it is es-

sential that they should be pure, or the work will not endure, but fade and discolor very quickly. The advantage of the best and purest materials for painting is not only in its durability, but also in its economy. The highest price and the best article is the cheapest to the painter and his employer in all cases.

ZINC PAINT.—White lead, however, I should recommend as the foundation and principle of all exterior painting, having found, by twenty years' experience in country and town work, that it is the best.

SYSTEM.—In the application of paint in priming, as well as finishing, it is essential that the workman should observe a system in order to accomplish as much work as possible in a given time with the usual amount of labor. Some men will work very hard without a system, and do a small day's work; others work easily along, systematically, and do a much greater quantity of work, and do it well. In painting fences, railings, lattices, or blinds, and other similar work, a system

is absolutely necessary. A half-hour's experience of the workman will teach him the proper mode on most of such work ; but on blinds and picket or baluster fence a few directions may not be out of place here.

BLINDS.—Lay the blind on trestles or on two barrels, with the stick or inside up. Paint all that can be painted from this side by turning the slats to and fro, but not necessarily reaching the brush through to cover all the slat. Paint the edges of the blind, and then smooth off only the stiles and stick ; then turn over and cover what remains of the slats and stiles. See that the inside edges are covered by running the brush in between the slats, also the ends of the slats both before and after turning, as well also as the edges of the slats ; thus the blind will be covered. Now proceed to smooth off by reaching the brush carefully through to the lower edge of the slat and drawing it evenly from end to end ; first taking one side of the slats, then turning them down, holding

them a little open and smoothing off the other side ; then smooth off the stiles, and the blind is done. Stand it up with the inside out, in order to touch up where it rested on the trestles.

FENCES.—First paint the edges both of the pickets or balusters and the rails, as well as the edges of the ribbon-strips and bottom-board, from the outside for six or seven feet. Thus the paint which gets on the faces, in doing the edges, is so much gain, and the piece of fence so begun is more than half done, and the faces may then be covered and smoothed off by one stroke of the brush. The inside should be done last, with the posts. No piece of fence should be left unfinished over-night, as the runs will dry and look bad when completed.

LATTICES.—Take a large half-worn brush, fill it full of paint, and lodge it on the work over as much space as the brushful will cover ; then briskly rub it out over the same, covering the outside edges, and if the inside cannot be done, cover the

inside edges by running the brush through. If the inside is to be done, leave the outside without smoothing off until the inside is done the same as the outside; then smooth off first the inside and then the outside.

ADVANTAGES OF SYSTEM.—System is essential in all work, and in every part. There is a certain place to begin, and a place to finish. On doors, architraves, panels, cornices, etc., the mouldings, beads, and edges are first to be filled and covered; next, the stiles and surrounding work over a considerable surface, say the whole side of a door or architrave, without laying off until well covered. In painting first the mouldings, etc., the other parts get nearly half covered; and if this system is well and continually carried out, as all good workmen do, the result is rapid and good work. A systematic workman will also complete his work as he goes along, and not paint a patch here and a patch there, as if he had no particular design.

DRYING OIL.—Sometimes it is necessary

to prime window-frames and doors before they are set in the building, and in some cases the paint is required to be dry soon, that they may be handled by the carpenters or masons. In such cases, the priming should be mixed with boiled oil and raw, in equal proportions, with a little turpentine. In any other case where the priming is required to dry quickly, the paint may be mixed in the same manner.

DRY WOOD.—There is no particular advantage gained in priming directly after the carpenters—that is, priming as fast as the work is put up, unless it might be in very hot weather. It is best to let the work season or dry out free from all dampness; and let it check and shrink if it will, so that some of the paint may be absorbed in the surface, and the checks and joints puttied up, so that they will not appear after the work has been finished, and thus render it necessary to putty and touch up again, to the injury of the work as regards its looks. In priming up to the carpenters, the work is liable to get full of saw-

dust and be otherwise disfigured ; besides, the painter will necessarily lose much time in waiting and in not having a straightforward job to keep him for any particular portion of a day. If a small house, it is better that the carpenter were entirely finished and away, as regards the outside ; then the priming can be done quickly and cleanly. On a large house, it is economy for all parties, as well as for the good of the work, for the painter to have two or three days' work ahead of him until the priming is completed. Some may say that wood should be primed as soon as put up in a building—that is, outside—to prevent it from shrinking and checking. My experience has proved abundantly to me, that the wood will check and shrink by the action of the sun's rays just as much in that case, and that it is far better, for the durability of both wood and paint, to let it get air and sun-dried first. Frequent wetting by rains will not much, if any, retard the process of seasoning. For the same reasons, very little, if any, work

should be primed in the carpenter-shop. In our day, there is little lumber that is well seasoned ; and however well seasoned it may be, all builders know that it is still liable to shrink and check. The manner in which lumber for outside work is generally kept is not such as to render it very dry for use.

In finishing outside work, use white-lead and good French zinc in equal parts ; or for white finish, zinc alone.

OUTSIDE PAINTING.

DRYING.—In summer, priming coats will be sufficiently dry for second coating in two or three days ; but in winter, a week at least is required to dry it hard enough to apply another coat.

BEST TIME TO PAINT.—As finishing coats will not dry readily in winter if mixed with good oil and without much turpentine, though with plenty of drier, I would advise that it be left over January, February, and March. In all other months, my experience has determined that it is

safe to apply finishing coats ; but the best months for outside finishing and painting are September, October, and November. In our latitude, it frequently occurs that December is a very good month for it.

Painting well done with proper material, in those months, will endure longer than if done in any other ; because the coats will have all the winter to harden without being subject to the heat of the sun and the warm showers of summer, which wear and injure paint more than any thing else. Although convinced of the above fact, yet the difference in durability of good paint, well applied in any summer month, is, as far as I have been able to investigate, not of sufficient importance to cause a delay in finishing work as soon as it is fully completed for painting.

NAIL-HOLES, ETC.—Previous to applying the second coat, the nail-holes, joints, and checks should be well puttied with putty colored, if the work is to be finished with this coat, of any fancy color ; but if the third coat is to be put on, then the

putty may be as made, only a little hardened with whiting in either case—presuming that the putty is soft as for glazing, in which state it should generally be kept for sale or use. Most painters nowadays putty before priming ; this is just as well for ordinary work or for white work ; but in the best buildings, and where fancy colors are to be employed, it is best to prime first, on account of the tendency of such colors to absorb heat from the sun and open the joints and checks, if any ; and as well to prevent the necessity of puttying over twice, which is frequently apt to occur if puttied before priming.

SAND-PAPERING AND CLEANING.—Sand-papering the work before painting is requisite, particularly the rough places, in order to make it smooth and cleanly when done. The dust should be cleaned from the work and swept some distance away, so that any little gust of wind should not blow it in the paint. In windy weather, sprinkling, when there is plenty of water on hand, is very serviceable. In painting;

a nice front in a village where the roads are most dusty, and the wind is apt to send the dust directly into the paint from every wagon that passes, it would be well to employ the village sprinkling-cart, as it often happens that there is one in use ; or a little expense in wetting the road in front of the premises will not be thrown away if no such convenience is to be found. Painters may say that this is a little too nice, “too particular ;” but I have always found my account in it, not so much for the “pay” as the satisfaction of having a job done as well as *possible*. It is very seldom, however, that this sprinkling operation is necessary, though workmen cannot be too particular in dusting and cleaning their work generally.

CONSISTENCY, STRAINING, ETC.—The paint for second coating or for finishing should be thicker than for priming, and should be strained. The best strainers are of tin, made somewhat like a wash-basin, with the bottom of manufactured perforated tin, which can be procured of

different grades of fineness for the purpose.

APPLICATION, RAINS, DEWS, ETC.—More care is required in applying these coats than in priming ; otherwise the same directions may be followed generally ; and, to save a repetition, I refer to those respecting priming on pages 2, 3, 4, and 5. More drier is also required in finishing, because there is less absorption of paint in the wood, and more danger of injury by sudden showers or storms. Sometimes a heavy dew will injure fresh paint if not set ; therefore, in painting in such places on a building as the dew is likely to hurt, it is prudent to do it only in the fore-part of the day whenever it may be convenient, according to the extent of the job, etc. ; for instance, always begin to paint a piazza-floor, a roof, or any thing similarly exposed, in the morning, and commence at that place which gets the least sun upon it. This is a very important rule, and I have seen much damage which could never be repaired result from its

neglect, by rains and dews falling in the night upon that part which was last done and which had no sun upon it all day ; whereas, if the painting had progressed round with the sun, it is almost certain that all would have been set, and thus free from danger of being spoiled.

SQUARING.—Every part or portion of a building must be finished, or, as the term is, “squared,” on the same day that it is commenced ; for if it is left not squared over-night, or even for one hour, while taking dinner, as it may occur in warm weather, it will show very bad laps, which it is difficult if not impossible to remedy.

Reference may be made again to pages 6 and 7, where laps are particularly described, and how to avoid them. The same directions will apply here, though it is easier to avoid them in the last coats.

MIXING.—Directions for mixing and coloring paint will be found on pages 2 and 7 ; those directions apply equally to finishing as to priming—the use of turpentine, oils, and driers also included ; only

it must be remembered that the paint must be a little thicker, as before mentioned.

If a third coat is intended, it is absolutely necessary to mix the second coating with a good proportion of turpentine : in summer, it should be about one third ; in winter, one half. In repainting old work, sometimes more than this proportion may be used.

FLASHING.—The object of this use of turpentine in the second coat when a third is intended, and only in such a case, is to prevent what is called “flashing,” or a deadening of the intended gloss of the third coat, which totally spoils the looks of the work for a long time, though it does not materially injure the paint or render it less durable. The last coat should be mixed with raw linseed-oil alone.

BLINDS, ETC.—The same directions given for painting blinds, fences, lattices, etc., on pages 10 and 11 will be observed here ; as well as other directions elsewhere in regard to painting on buildings.

OF GREENS.—Green paints require to be ground very fine in a good mill; they must be ground in raw linseed-oil only, and as thick as possible, and kept in closed vessels. In using, they require more carefulness of the workman than the common paints. On blinds and lattices, green should be rubbed out well so as not to run or drip, and ought never to be mixed with white lead or other paint where a good green is desired. To mix a bronze green, add a little umber ground in oil, or simple black, also ground. Bronze color may be varied by the addition of ochre, lead, or other colors. A rich dark bronze can be made by the addition of Prussian blue ground in oil.

Where a very light green is wanted, and where it will not be exposed to the weather, then white lead or zinc may be used with it.

Paris or French green is very difficult to use; it should be mixed, for the first two coats, with one third turpentine and two thirds boiled linseed-oil, and in applying

should be rubbed out harder than any other paint, as it is more liable to drip or run.

Three coats of it are necessary to a good finish, as it is a very transparent paint, without body and consequently will not cover well; the third coat must be all oil—that is, mixed with oil alone, boiled and raw. Priming for Paris green finish must be a light green.

CRAWLING.—Painters sometimes experience a difficulty called “crawling,” particularly in winter months, in coating over a cold and glossy surface. It is a tendency of the paint to shrink or run away in all directions, leaving numerous little round openings through to the old coat, which, if left to dry in that condition, presents a very great disfiguration of the work. To avoid this, a slight rubbing with a cloth or the hand will sometimes do; but generally it is effected by hard rubbing with the brush. To guard against it, the same precautions to prevent flashing may be resorted to—that is, the use of plenty of turpen-

tine in the previous coat ; which is another case where it may be freely employed in mixing paint. In fact, turpentine in considerable quantities may be used in many parts of outside work, such as ceilings, under portions of cornices, and such like places, but should not be put in paint designed for parts that are exposed to the sun or weather.

BRICK-WORK.—In the painting of brick-work, the same general rules and directions are to be observed. Bricks, however, absorb more paint in the first and second coats than wood, and, in finishing, more care is required to prevent laps and runs. The practice of oiling brick buildings with linseed-oil by means of a sponge or a brush, is good if plenty of oil is absorbed in the surface, as it has a tendency to shed the rain and dews ; but painting is preferable for the same end, even if few coats are applied, as it fills the pores of the brick.

SANDING AND SANDERS. — Sanding, which is generally done for the purpose of

imitation of stone of various colors, is a matter of great utility and beauty in house-painting. If well done, it will last many years, and need not be repainted except to freshen the color or change it, or for the purpose of cleaning off the stains from dust which may accumulate. The sand should be not of the finest nor the coarsest ; well dried, and sifted into the third coat, if a new building, with a sander ; the best are made like a grocer's scoop, with the bevelled part of perforated tin, the holes about one sixteenth part of an inch in size, and should be made so as to contain, when full, about four pounds of sand. They are filled through the handle, which is stopped with a plug or cork while using. Considerable skill is required to perform this part of the work, which can be readily acquired by a little practice in the use of the sander. Machines have been used for sanding to a good advantage, but I prefer the more laborious mode of the sander, as I think the work will be better done by it, besides the machines are very

inconvenient for much of the work generally sanded.

The paint into which the sand is to be sifted should be mixed with nearly all oil, and put on as carefully as if for finishing-coats, and the sand must be applied while it is fresh and sifted against the surface as long as any appearance of the oil remains. The workman should examine carefully for any greasy spots, and dash on the sand again before allowing the paint to dry or set, even. Care must be observed to keep the painting stretch, or the edge, always beyond or out of the way of the dashing or falling of the sand, for if the brush comes in contact with the sanded part, the work will be unavoidably disfigured or spoiled.

Once sanding is seldom sufficient for a good solid look of the work; a second sanding in the same manner, after the first is thoroughly dry, is more easily accomplished, though the application of the paint is more difficult. For the second sanding, the paint should be a little thinner

than for the first. These directions apply as well for wood as for brick-work.

LINING.—Lining in imitation of brick is done with white, by means of flat brushes made expressly for that purpose, called “trenches” or “liners.” Where the joints are even and smooth, the lining may be done by an experienced workman without a straight-edge or rule; but for rough work, those aids are quite necessary. Lining in imitation of stone is done in the same manner with sometimes white, at others of various colors, according to taste, etc. The size of the block represented varies also according to the taste or general design. Small buildings or small portions of the same should be lined to represent small blocks, say from ten to twelve inches wide and from twenty-five to thirty-five inches in length. If the building or space be larger, the blocks may be increased in size; but the smaller will answer for most work. In lining, great care is needed to avoid the slipping of the brush from the direct course, as in remedying such slips,

the spots will unavoidably remain and look bad for some time. In lining on sanded work, the lines should first be laid out by chalk-line or lead-pencil and a rule ; then the lines should be first traced with a dull instrument of iron or steel, to remove or flatten the sand ; then the color may be put in the line thus made, by the liner, or a flat brush called a "Fitch," and should be done with a careful hand to prevent slips, which in this case are more difficult to remedy than in plain work.

BLOCKING OR SHADING IN IMITATION OF A STONE.—Sometimes an imitation of stone of various colors or shades of color is required. This is done by first lining with the lead-pencil, and then painting the blocks different shades. Three shades or colors are generally used, and they should be put on in regular succession and system, for if no system is observed in coloring, the job will not look well ; but with it the work has a very pleasing effect on the eye, though the system does not appear unless it is observed very closely by a spectator.

It is a good plan to number the colors on the pots or kegs, and the blocks designed to receive each, as it prevents mistakes, which are likely to occur on this kind of work. Blocking may be left plain or sanded, as any other kind of work ; but if sanded, it will last much longer—in fact, sanded work, as before stated, will last many years ; painters frequently say, without much exaggeration, that it lasts “forever.” Blocking is sometimes made to represent veined stone, or clouded—such as blue granite with veins of quartz, or brown stone with dark or light shades—and requires some artistic skill to accomplish, both as regards the colors or shades to be used, and in applying them. The veining or shading should be put in the blocks while the paint is yet wet, particularly if the work is to be sanded ; in any case, they will blend in better and present a more natural appearance ; though in sanded work the shading colors should be more definite, more distinct, and blended.

in a little less than for work to be left without the sand.

TIN AND IRON WORK.—Tin and iron work never require more than two coats, as there is no absorption ; it should not be put on as thick as on wood or brick, but should be applied as carefully and rubbed out more, because it is more apt to blister if put on thick. One coat well applied, and mixed a little thicker than for two, is very frequently sufficient for old iron or tin work if the old paint is not very much worn ; and the same may be said in regard to wood or brick work, under like circumstances ; but it is well to understand that the paint must be mixed particularly to be used as a priming or as a finishing-coat ; though there may be portions of the work that will take a second or finishing coat after the one coat is dry, and which may not look as well as other portions. New iron-work should, first of all, receive a good priming of pure red-lead without adulteration, mixed with two thirds boiled linseed-oil and one third

turpentine. This coating will effectually prevent the rusting of the metal, if well put on. I have heard that some other "mineral" paints would accomplish the same, but I have never been willing to risk the trial.

STOPPING.—Long joints in ceilings, floors and other places, if to be puttied, should first have some paint put into them in priming, and then when dry filled up even and tight; if the putty should fall through the joint or crack, it can be stopped by first cutting or ragging the inner edge with the knife.

TACKING.—In painting stoop and piazza floors, it frequently happens that, in consequence of too much oil being used in mixing the paint, it has a tendency to "tack," or remain soft on the surface for a long time, allowing the feet, a chair, or a mat to stick to it, and if the floors are much used soon after painting, the work will be utterly spoiled. Sometimes this is attributable to the adulteration of linseed-oil, which it is difficult for painters to

guard against, particularly in summer, as some merchants will mix an inferior oil—fish-oil sometimes, or rapeseed-oil—with the pure linseed, and thus spoil it for such work. Although I am certain that adulterated oil will produce this defect more than good, yet I am inclined to attribute it more to the heat of the atmosphere keeping the surface of the paint soft. As it is only in the hottest summer months that this difficulty occurs, I have therefore often recommended that such floors, where much used, should not be finished in June, July, and August.

DUST ON FRONTS. — From the same causes, the fronts of houses near dusty roads, are frequently covered with a coat of dust, which it is almost impossible to wash off. Painters can easily detect the adulteration in oil, and it is to their interests to buy only of those merchants who are respectable and sustain a reputation for superior goods, though their prices may be higher than others.

BEGINNING TO REPAINT.—In commencing to repaint a house of much size, the blinds should be marked or numbered, with a corresponding number on the side of the window, of sufficient plainness to be distinguished through the paint, and taken to a convenient place, where they may be free from dust or weather, and painted during rainy days, if there happens to be no other inside work, so that they may be ready to hang up again when the house is done. If the blinds do not require painting, they should be removed for a time from the rest of the work, as they are apt to get spattered, and also will not be in the way of facilitating the other painting. Begin at the top and on the most difficult and dangerous part of the building, and work downward, and square at night, or on other occasions when leaving, as mentioned before. Never begin the second coat or finishing until the first is complete on every part of the house ; finish stoop-floors, however, as soon as opportunity occurs, and if, when the finish-

ing-coat is completed, the blinds shall have been finished and thoroughly dry, they have only to be put in their places, and the painter will have no occasion to send a man to touch up and finish little portions which may have been delayed by a neglect of a straightforward system. Thus with two or three workmen, a large house may be thoroughly repainted on the outside in a few days, and its occupants will scarcely realize that they have been troubled by painters, except in the improved appearance which it presents.

DISPOSITION OF COLORS.—In fancy colors, the trimmings, such as cornices, frames, stiles, columns, and other projections, should invariably be of the darker colors, and all siding, clapboards, filling, such as panels, recesses, and other like surfaces, should be of the light color. Window-sashes look best of a dark green, or an imitation of some dark wood, such as dark oak, black-walnut, or mahogany.

Blinds should vary in color according to the style of the architecture. For a Gothic

house, they ought to be of a shade between the trimming and the body, and may be improved by having the panels light and stiles dark. For those of the Italian and other similar styles, particularly when highly ornamental, or having high towers, the same colors must be used. Sometimes those styles of building, particularly if extensive and imposing, look best of one color only ; it should not be, however, a very dark one, and in that case the blinds should be of the same. In some circumstances, the Gothic looks well painted a dark stone color ; for instance, when surrounded with large trees, or in a city or town. Small cottage buildings of either of the above-named styles, in whatever location or circumstances, look as well with green blinds ; and it is the best color for blinds of almost all other styles of houses. The green should be kept as pure and rich as possible ; light for white and light-colored houses, and darker for houses of a more sombre color. A heavy dark-green on a white or light-colored house, I think,

looks bad. At a distance, one thinks they are painted black, as if the house were in mourning. Blinds painted any other colors than green or the color of the house, as directed above, never have a pleasing effect. This does not apply to blinds hung upon the inside, which may be painted any light color.

The color of out-houses, such as barns, coach-houses, etc., and fences, should correspond generally with the colors of the main building. Some exceptions may be made, however, as in towns and villages; if the house is white, the out-houses may be of any color. This, in most cases, may be left to the taste and judgment of the owner or the painter, being particular always to keep to uniformity. Dwelling-houses and out-houses of the ordinary styles sometimes look very well trimmed with white when the main body is of the lighter drabs or browns, and some of the more ornamental styles will look well done in the same way; but this fashion is, of late years, giving way to the more sombre tints.

In painting a new building, or any portions of it, or any work designed to be finished with fancy colors, time can be saved by priming all with one color or shade. Two shades must be used in priming when the finish is designed to be of colors in which the contrast is decided—that is, of colors or shades which are very different from each other.

SAVING OF TIME.—Much time may be saved in priming buildings by making use of scaffolding of the carpenters or masons, as the work can be done quicker and better, particularly if it is very high. Cornices, in that case, should be finished from the scaffold ; and in sanding, particularly, the advantage is great, as it can be done in half the time, and as not much of the sand gets in the paint, it can be saved more easily by spreading cloths for that purpose ; besides, it is very difficult to do it well from ladders.

CLEET-SPOTS.—Cleets, or pieces of board or plank, nailed to the building for the purpose of securing the scaffolding, should

be removed before the priming gets dry, and the spots thus left painted carefully over; for if the spots are left, by leaving those cleets on until the coat is dry, it is almost impossible to prevent them showing and presenting a great disfiguration, even after several coats have been applied. But it frequently happens that the cleets must be left; in that case, by great care in covering, the spots may be so painted as not to show much.

LADDERS.—Good ladders are a very essential means in house-painting to facilitate the work; for with bad or unsafe ones, or those of unsuitable lengths, the workman cannot get along very well. They should be made of good, straight, clear spruce stiles, and oak or ash rounds, strengthened with iron rods, about three to each of the long ones, and when not in use must be laid up on trestles together, level and straight, and should be kept well painted and wedged up in the rounds.

The workman should stand his ladder as near the work or as straight against

the building as possible and consistent with his safety upon it, so as to be able to reach more work and not have to move it so often. Always see that the work under and near the top of the ladder is well smoothed or well laid off, even if it is necessary to move the ladder to the right or left to do it, for it cannot be well done with the ladder in the way. Much care is required in avoiding marks of the ladder ; in this, a skilful handling is needed. If the ground is uneven, blocking of boards or any thing suitable may be used, but caution is essential..

Ladders should never be left standing at the work after the workmen have left, unless secured by ropes or other means, for a sudden gust of wind may prostrate and shatter them, and render them unsafe or unfit for use.

FAT PAINTS.—Paints mixed for outside work, if allowed to stand for some time, become fatty, and are only fit to use on rough boards, in gutters, or some such work ; for its tendency to run and drip,

on account of the fatty nature, is such as to be incurable, and is sure to spoil any good work upon which it is applied. It should be used up in four weeks at least. Also, paint mixed for outside work should never be used inside ; there may be exceptions, but it is best to follow strictly this rule.

ROOFS.—Roof-painting, more especially tin roof, has of late become a very important consideration.

There are some of the so-called mineral and metallic paints and other roof compositions that are very good ; but my experience has convinced me that there is no better paint for tin roof than the common Spanish brown, Venetian red, and yellow ochre, mixed with pure raw linseed-oil ; or, what is better than linseed alone, is a mixture of equal portions of that and a good fish-oil, which does not dry hard and render the surface brittle as linseed-oil does, but is consequently less liable to dry up or crack with the ordinary expansion and contraction of the metal under it.

This expansion and contraction is caused by heat and cold, and, if the paint is thick, hard, and brittle, it has a tendency to break the joints in the roofing even where thickly or strongly soldered, thereby causing leaks. If the roof-paint is very dark, or, as may frequently be seen, black, the effect of the heat is increased and felt in summer, not only on the roof and under it, but over the whole building. Therefore I would almost insist on painting roofs a light color—say with good French ochre, which would look well on some kinds of buildings, or with zinc stained to represent the color of light slate or sheet zinc. Roofs which do not show might be painted white. Ice-house roofs, by all means, should be a very light color, if not white. But most of the trouble with tin roofs originate from the imperfect or unskilful manner, or both, of their joinings with the brick and wood work ; around chimneys and in places where the brick or wood work extends above the roof, the tin has to be let in, and secured with

wedges or nails, and is often merely plastered or pointed with a cement, which soon falls out, particularly if the wedging is not well done, and the consequence is a flooding of the interior of the house whenever a storm arises. Buildings which have much top-work, such as balustrades, blocking courses, observatories, and such like embellishments, are very apt to have the tin roof-work perforated with nails in places which cannot be reached ; this, however, may be only on such buildings as are put up in a great hurry by contract under a ruinous competition. The best material for jointing on tin roofs, after the wedging is done, is paint-skins boiled up and ground or chopped fine, and mixed with a little sand to thicken it like cement.

Fish-oil is perhaps the best for all kinds of roofs, but the difficulty is its drying. If on tin, it gets the surface of the paint skinned over before a rain—then it is safe ; but there is danger of its washing over other parts of the house and spoiling other

work. If a roof is safely done with paint mixed with fish-oil alone, it will last a much longer time than any other paint. Shingle-roof, if painted at all, should be painted with it; but any kind on them should be applied much thinner than paint for priming, for, if the paint is thick, it will hold in the joints and dry there, forming places to retain the water longer on the roof and causing rot.

Tin roofs are sometimes striped with two or more colors or shades, but do not look very well except on lightly constructed veranda or such like roof.

FARM AND GARDEN IMPLEMENTS.—Farm and garden implements being much exposed to the weather are preserved longer by being painted. Carts, wagons, ploughs, harrows, barrows, etc., may be coated with the brown or ochre, as mentioned for roof-paint, and mixed with linseed-oil, about the same thickness as for tin roofs.

Taste may be displayed in painting the bodies of wagons and carts a different

color from the other parts, and blacking the iron-work, etc.

ZINC DRIER.—As I have recommended zinc paint for all outside painting, it is as well to state in regard to it that it requires a stronger drier. A patent liquid drier is manufactured and sold for zinc, which, if of good quality, is very well adapted for it. Although zinc needs more, or a stronger drier, it is not so liable to be washed or injured by rain as the paints mixed of white-lead and other materials. But as it is difficult to get driers strong or good enough to dry properly paint mixed with unboiled linseed-oil, particularly in cold weather, it is as well to depend upon the old method of drying with litharge, which can easily be procured of good quality.

BOILED OIL.—Boiled oil is used for the purpose of quick drying and a good gloss by most painters, and where those results alone are wanted it is undoubtedly the best. But, as durability, in my estimation, is far more important, pure raw lin-

seed-oil is much better. If the gloss is not quite so brilliant when the work is just finished, it keeps its freshness and color a much longer time. I consider that in boiling oil, just one half, if not more, of its real virtue as oil is destroyed ; I would rather let the sun and weather have their own time to boil it after it is on the work. I have had painting outside stand and look well twice as long as others, and no other cause can be assigned for it but the use of the un-boiled oil in my work ; and the risk of injury by rain or dust has certainly been no more. Boiled oil should be used only in the case mentioned above, or for inside work as hereafter directed, and machinery, sign, ornamental, and carriage painting—in fact, for almost any kind but outside finishing.

CHEAP OILS.—Of late years, there is a good deal of cheap oil made and offered for sale, and highly recommended for roof and iron work, as well as for rough work generally ; but as such oils contain more or less of resin and similar substances which

have a much greater tendency to crack, become brittle, or dry quickly into powder than boiled or raw linseed, I think it unsafe to employ them on any work. They may, however, answer very well for old or rough out-houses, fences, and such like work, where durability is not an essential requisite.

CHEAP PATENT COMPOSITIONS.--There are also various recipes for compositions which cost a mere trifle and recommended as very good and durable for many kinds of work ; but as they are certain to quickly impair or wash off by the action of the weather, I believe that they are of no real advantage or benefit to the painter or his employer. Besides, sometimes it is almost impossible to paint over them with good paint, or, if possible, the cost is rendered nearly double. Any composition or mixture designed to cheapen the article of paint never works, in the long run, to the pecuniary good of the painter. The extra time required to prepare and apply them, and the general un-

satisfactory appearance and rapid deterioration of the work, as also the extra quantity necessary, and damage to reputation, render it by no means a desirable or money-making business. Extreme competition in places where there are many painters sometimes compels them to use various means to under-work each other, consequently the quality of the work must suffer. Under such circumstances, it is well, it is important, for those requiring any kind of work to be done, to appreciate those who have the best reputation, or indicate, in their dealings and intercourse generally, the most uprightness and the most independence of such competition, which alone has caused so much distrust and suspicion of this very useful profession.

SASH-PAINTING.—The painting of window and other sash, in house-painting, is one of the most difficult and important of outside work ; and on the neatness with which it is done depends, in a great measure, the beauty of the whole job. A

small brush or "sash tool" is used for this purpose, and is seldom required for any other part of ordinary house-painting, and much skill, and a little regard to the system before mentioned, is required to make rapid headway in this part of the work, which is considered quite tedious; but as the kind and style of sash are so various, the workman must exercise his ingenuity and judgment in regard to it, rather than depend upon any directions which may be given. Where blinds are closed most of the time, one coat is sufficient, or if a second coat is necessary, generally the large parts only require it. The color for sash depends generally on the color of the house, though the dark colors, such as bronze green, or imitations of some dark wood, such as dark oak or black-walnut, may look well on a house of any color or style, and in case they are concealed mostly by the blinds, they can be white.

HOT-HOUSES.—In painting hot-house or green-house sashes, when new, care must

be taken that the wood is perfectly dry, as they are liable to be wet from heavy dews or from the condensation of the vapor rising inside. Paint applied to wet wood outside is sure to peel or blister. Where it is convenient, always finish the inside of such sashes before the glass is set, for it takes four times as long to do it after; and if the glaziers will be a little careful, they need not injure the paint in the least, even where they have to bed or back-putty the lights.

The putty part of sashes should be painted within one week after being exposed to the weather, as a skin forms upon it very soon, and the paint will not take so well, and is liable to peel off. Sashes exposed all the time to the weather require to be kept well painted—not with very thick paint however, as that has a tendency to crack and peel; and they should be primed in the grooves made for the glass.

GLAZING.—Glazing belongs mostly in our day and country to the sash-maker, and perhaps it may be as well to omit any

reference to it here, except the repairing, which the painter generally has to do. And here let me give a little advice to those who may need to send to the glazier on a cold winter day, or in summer, when he may be hurried with work, to set a light or lights of glass ; and that is, to measure with a rule the exact width and length of each light, being particular to measure so as to include the space where the putty lays, or the measure may be taken on the inside from the narrow edge of the bars, which is the same on most sash as the space outside filled with the glass ; write the measure down plainly so that there may be no mistake, and you will save the glazier much unnecessary trouble and risk of breakage ; for, if he sends a boy to do it, the chances are that the work will not be well done, that more lights will be broken than new ones set, as no place to cut them can be found as good as the shop-board ; or the diamond may be spoiled by an unskilful hand, or the lights taken may all be too small or

too large. So, under these disadvantages, and others, such as distance and weather, a man, or the boss himself, would be likely to make equally as bad a job, and suffer much loss through not getting sufficiently remunerated, or not having the heart to charge as much as the job is really worth. All this difficulty is avoided by sending the exact measure and number of lights ; besides the glazier will be more ready, more prompt, and more reasonable in the charge.

The old putty must be removed with a sharp chisel or a stout knife, very carefully, not cutting away or splitting the sash. After cleaning out every particle of the old glass and putty, the new light should be set in with the bow or rounded side out, and tinned in with at least four points or more, according to the size of the light ; the putty then may be put on, taking care that its edge on the glass is even with the wood inside and straight and clean ; then clean off with a duster and whiting, or, if that is not handy, a soft

cloth will do if used carefully so as not to disturb the putty. Nothing looks worse or is a greater eyesore than a botched job of glazing; therefore, I have been thus particular over what many may think a matter of trifling importance.

BLISTERS.—Bad blisters in the paint on front doors, vestibules, and such like places where the sun concentrates its rays the most, are caused by little spots of pitch in various parts of the wood-work being acted upon by the heat, forming a gas, which raises the paint. There are several remedies for this: one is, to see that, in making the door or other part so exposed to the sun, the wood contains no particle of the pitch. Sometimes these spots of pitch are very fine and diffused throughout a whole plank, so that ordinary scrutiny fails to detect them, yet they produce bad blisters when exposed to heat. Some plank contain no such spots or pitchy grain, and such only should be used for the work before mentioned. Such portions of work generally get more frequently painted; and the thicker the

paint, the more it will blister. If an old door, rubbing down to the wood will not remedy the evil, for the cause is still there. In that case, or when it is found that there is pitch in the wood, the other remedy is to keep it painted white or light as possible, and the coats as thin as can be put on. Doors, etc., on the south side of a street, or in situations where there is but little sun, may be made of any quality of wood, or painted any color, or as thick as it may be put on, and no blistering will occur. Coats of paint or varnish may be, however, too thick in either case. There is scarcely any varnish made that will stand on a front door, particularly if put on thick. It is better, in both instances, where such work requires repainting or varnishing, to do it often and very thinly.

RUBBING DOWN.—Rubbing down, being referred to above, is often required where paint or varnish becomes cracked or burned by exposure ; it is done by a lump of pumice-stone with water and a sponge ;

the stone must be kept flat, even, and as free from paint as can be by rubbing it often on a flag or file. After the pumice-stone, then use sand-paper. Where the work is very much cracked and rough, paint may be used instead of the water, by first heavily coating the work, and then rub with the stone until it is sufficiently level, then lay off the paint as for finishing, and sand-paper it when thoroughly dry. Small pieces of pumice-stone should be used for the moulding and corners

OLD PAINT.—Old paint may be removed by a solution of potash in water, by applying it with a sponge or brush, until the paint is softened, then peel it off with the putty-knife or chisel.

SMOKY PAINT.—Previous to painting over smoky or greasy surfaces, a weaker solution of potash should be applied to every part, and left upon it for twelve hours, and then cleaned off.

PREPARING.—The work must be clean, dry, and well dusted, and the room swept; then putty all nail-holes, joints, checks, or

other places which require it, taking care to leave nothing in this particular undone, for the painter should not leave his brush after he has once taken it up to prime, to putty the work over, or do that which has been omitted. Then the knots and pitchy places must be covered with the shellac-varnish; and when that is dry, then the priming may be applied.

SHELLACING.—All good inside work should have, previous to priming, a coat of shellac-varnish, the same as for killing the knots, except that it should be reduced with alcohol one half, and applied over the whole work with a flat or other convenient brush. This prevents the pitch and sap in the wood from showing through the paint when finished. Without this shellacing, the white work looks very bad, even after being repainted several times; and where zinc-white is used, it will bring out the pitch much worse than lead. Work intended to be grained does not require it, but it is best to apply it, as it makes the work better.

PRIMING.—White-lead mixed with one half boiled oil and one half turpentine, should constitute the first coat of paint on inside work. Driers may be used in cold weather, but in warm the oil itself may be sufficient. It is essential to get on as thick a coat as possible, therefore lead is preferable to zinc, as it has more body and covers the grain of the wood or the shellac better. It should be thin enough to work easily under the brush, though not without somewhat more rubbing or bearing on than for outside. If it is not rubbed out well in applying, it is apt to drip, and collect in the corners and mouldings. The paint should be well strained before using.

WET WOOD.—Dampness from wet walls or other cause must be removed from the wood before priming. In new houses, the work is frequently covered with wet from the condensation of moisture from new walls upon it, and should not be painted in that state, but means taken to dry it first. If to dry it by fires in the rooms

might be too expensive, the windows may be opened throughout the building during the warmest part of each day when the sun is out, which would effect the object, though perhaps not so quickly. Rooms finished in a hurry, regardless of these necessary rules, on account of their being immediately wanted, are very dangerous places to live in as regards health, and the paint is generally blamed for much mischief done in that respect, of which it is entirely innocent ; besides, the work is, if not spoiled, stained and discolored so as to necessitate a repainting very soon, and the painter is consequently very often blamed for bad work by those who could not have known the cause of the trouble.

PRIMING FOR GRAINING.—If the work is designed to be grained in imitation of dark wood, including some shades of oak, the priming should be stained a little so as to be about the same tint as the wood intended, because if primed white, it will be apt to show in joints which may in time

occur, or in any accidental dents or scratches.

CLEANING.—The plaster and dust should be cleaned off from new wood-work, preparatory to priming, without using water—or as little as possible; for the wet will raise the grain and make the work very rough. It can be cleaned in the same time and with no more labor by old sand-paper or a block of wood, and a dry scrubbing-brush, dusting off afterward with the duster.

WHITE-LEAD PUTTY.—Some putty is apt to show through two coats of white, therefore it is very useful to mix a little white-lead with it; about one third in bulk of lead will answer to make it considerably whiter, and it will be covered better with the paint.

SUITABLE BRUSH.—A brush of the largest 6 O size, about half worn, is the best for inside priming; a new one, or one too much worn, would make rough work, unless more time and care is used. In working rapidly, the brush is

sometimes apt to spatter the paint on the floor ; in such cases, it is well to have a cloth or a large sheet of stout paper to spread down to work on.

DROP-CLOTHS.—Drop-cloths are very useful, and should be in readiness in many kinds of work to guard against danger of spattering. The best of workmen require them when painting in rooms with the carpet or oil-cloth down, and they can work much faster with them ; it is therefore no indication of a careless workman, but rather the contrary.

SYSTEM.—The importance of system in painting, spoken of elsewhere, must not be lost sight of in priming inside, for upon it depends a saving of much time.

OLD WOOD-WORK.—Where old work inside requires more than one coat to finish, the priming should be mixed with less oil than for new work. One quarter to three quarters of turpentine is sufficient, sometimes even less. In case the work is in good condition as regards pre-

vious painting, the first coat may be mixed the same as for finishing.

WHITE SHELLAC.—Old wood-work requiring to be repainted is sometimes very badly discolored from pitch and sappy spots in it. To prevent these from showing again, the spots must be covered over with a coat of bleached shellac-varnish, made by dissolving white shellac in alcohol the same as that for killing knots and shellacing new wood-work. The alcohol for this purpose requires to be of the best quality, and the varnish to be kept well corked in cans or bottles. Both the white and brown shellac-varnishes can be bought ready to use, and are about as cheap as for the painter to make them, as some difficulty and danger attends the preparation. White shellac may ere long be cheap enough to allow of its being used for new work as well as all other; in fact, it may be best to use it at any rate, for it does not stain the work so darkly as the brown, and is covered easier. To make shellac-varnish, dissolve one pound of

gum-shellac in one gallon of good alcohol ; if the alcohol cannot be procured of the best quality and purity, the application of heat will be necessary, by putting the can containing the gum and alcohol in a kettle of boiling water, and stirring it frequently, and being careful to leave a vent to prevent an explosion.

PREPARING.—The priming must be thoroughly dry, and then sand-papered down, in case there are any rough places, or dust dried in the priming. If any stains from pitch should appear, apply the white shellac previous to finishing, and be careful to dust off the work well ; and also it is necessary to have the rooms swept out, that the work may not get dusted while wet, by letting the dirt be swept by currents of air upon it when a door or window may be opened. The work should be examined to see if any puttying is omitted, and this must be seen to before commencing to paint.

FLATTING.—Finishing-coats for ordinary work are mixed with turpentine alone,

without any oil except that in which the lead or zinc is ground, and must be applied very carefully, skilfully, and at the same time very quickly with a good brush ; each portion of the work must be finished before leaving it for a moment, and the joinings around panels at the ends of cross-stiles and such like places, or on large spaces, must be kept wet until the whole is done ; then it has a very beautiful, uniform dead look when dry, and is called by painters “flatting.” In flatting walls or ceilings, two or more workmen are necessary to work together to keep the joinings always wet until finished, and they should have their scaffolding or steps arranged so that the least possible delay occurs in moving them, otherwise the paint will set at the joinings and spoil the flatting, and it is impossible to remedy such defects but by rubbing down and doing the work over again. Flatting heavy work or large spaces must be done in closed rooms ; no current of air should be allowed to draw through and over the

work until finished, as it will set the paint too fast to work safely. Brushes for this kind of work must be of the finest and best kind, little and evenly worn. Uneven walls and badly planed wood-work, when painted in oil-color or glossed, show plainly every ridge and defect, which does not appear in flatting; thus the term "flatting." It is very seldom that walls are made perfect enough to finish with a gloss or varnish; or wood-work dressed with sufficient care, particularly on contract work, to finish with porcelain or enamelled surface, or to look well when highly varnished; therefore it is preferable in most cases to flat the work where neatness or perfection is desired in the painting. Flatting when dry is very hard, but soap, in scrubbing and cleaning, will dissolve or cut it, and therefore does not do very well for kitchens or parts where much cleaning is required; but for parlors, bedrooms, halls, and such like places, it is lasting and durable, and when requiring to be cleaned, generally clear water is suf-

ficient. Boiled oil, more or less, according to the place, added to flat color, renders it harder, and suitable for kitchens and other like places. Where a third coat for finish is intended, the second coat should be flatting color, with the addition of a little raw linseed-oil, about a gill to ten pounds; this gives more time to work the paint, the oil preventing it from setting quick, and also allowing the room to be open in case of hot weather, and thus making it more comfortable for the workmen; otherwise, both coats may be of the flatting color. The consistency of flat color depends somewhat upon circumstances. It should be thin enough to work easy, not apt to run down the joints and carvings, and thick enough to cover the woody color of primed work, which will easily be accomplished if the priming has been sufficiently good and stout. A material object in flatting is the tendency of the paint to retain its original and intended purity of tint; flat white will remain white, but finishing-coats,

with even a small proportion of oil, in rooms closed or partially closed most of the time, will turn yellow, and other colors, which will turn darker.

System is particularly requisite in flatting, as without it such work as windows, doors, and inside shutters and blinds cannot be well done; and it is in this kind of finishing that the workman soon finds the necessity of observing it very strictly. Different workmen may have different systems for particular portions of work, but as long as it is a definite one, it does not much matter.

EGG-SHELL GLOSS.—Rooms that are kept very light most of the time may be finished with what is termed “egg-shell gloss”—that is, by adding oil to flat color in small proportions sufficient to prevent its drying positively dead or flat, but having an oily surface when dry, yet not positively glossy. In light rooms, this kind of finish will retain its original tint and endure much longer, and bear more cleaning than flatting. It is about the same as color

mixed as directed where a third coat is intended.

TINTING.—Painting rooms in parti-colors or tinting the panels one shade and the stiles another, and sometimes the mouldings a third, is a very beautiful finish, and in some cities has been a prevailing fashion.

In most cases, the two last coats should be tinted, but sometimes the last one is sufficient, particularly if the shades to be obtained are not very dark. The color must be divided into as many parts as shades are wanted, and in proportions equal to the amount of work to be done with each, then adding fine ground colors, such as vermilion, blue, yellow, umber, india red, lakes, ochre, and such like materials, of the best qualities, in kind and proportion to produce the desired tint. They may be applied all at the same time and the work finished, or, as will be the best way, the principal shades may be used first, such as on panels and stiles, and when dry or set, then the other tints may be put on. Much depends, for the beauty

of this kind of work, upon the care and neatness with which it is done ; no spot of one tint must be allowed to appear upon another, but all should be perfectly clean and regular. In disposing the colors, the lightest should be used on panels, the darker shades on stiles. In tinting mouldings or beads, a small brush should be used ; sometimes a fine camel's-hair or sable pencil is best, in case the mouldings to be covered are small. Tints in chambers are sometimes made to match the shades of ornamental or enamelled furniture contained therein ; or to match two or three shades on the paper with which the walls may be covered. Parlors and other apartments are frequently tinted to match the paper. The principal paint is mixed the same as for flatting or finishing.

GLOSS OR ENAMEL.—Where the wood-work is well finished and dressed smooth and level, gloss or enamel makes a very fine and beautiful, as well as durable finish. It is done by first having a good ground of white-lead paint, flatted and

finely rubbed down with fine sand-paper, put on the work ; then put into the paint some good demar or white copal-varnish, sufficient to leave the egg-shell gloss when dry ; being very careful that it is applied smoothly and laid off finely, leaving no runs or strong brush-marks ; then apply the varnish alone with just enough paint to color it. This last coat must be flowed on the work, not rubbed out or brushed like the previous coats, but left on thicker or in greater body, evenly brushed out so as not to be thicker in one place than in another, or full in the mouldings so as to run out over the stile or panel. Quickness and carefulness are very requisite in the finish. Zinc-white of the best quality should be used for the two last coats, broken up thick with turpentine and strained very fine. Enamel-finish, to retain its pure white, should be made with zinc ground in varnish for the purpose, the first coat thinned with turpentine, the last with good demar or copal-varnish. If the varnish is old and thick, a little turpentine

must be used to thin it. Zinc ground in varnish as above can be procured in sealed cans at the stores where the best materials are sold. It should be remembered that stains from pitch in the wood must first be covered with the shellac previous to finishing for gloss or enamel.

GROUND COLORS FOR GRAINING.—Most kinds of imitations of woods are done with oil-colors ; the old-fashioned water or beer colors are done away with, except in some woods not much imitated in the present day, such as rose, maple, and mahogany—these latter require a ground nearly flat ; but for oak and black-walnut, the ground should be a good gloss, and for new wood-work three coats are necessary to make good graining, and the paint must be well strained and carefully put on as if for the best finish. The color for oak is to be tinted with good ground ochre and red ; if for dark oak, to about the shade of salmon color ; if for light, just a mere staining or tinting from white ; or even white itself will do for very light oak. For black-

walnut, the ground is to be composed of white ochre and umber, to get the shade of the lightest parts of dry black-walnut wood. For mahogany, get a dark orange color with ochre, white and red. For rose-wood, pure vermilion is the best, though a good brilliant red may serve the purpose. For maple or satin-wood, pure white with a trifle of chrome-yellow ; some grain it on pure white. The shades of graining of the various kinds can be varied by the graining and shading, and other artistic effects must be produced by the skill and taste of the workman. And now having guided the painter thus far, I take my leave of him, hoping that he may continue to advance to the highest degree of perfection in his art.

J. S.







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